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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,212	03/12/2001	Tomoyuki Nakamura	OOCL-52 (US-P1427)	8909

26479 7590 04/12/2005

STRAUB & POKOTYLO
620 TINTON AVENUE
BLDG. B, 2ND FLOOR
TINTON FALLS, NJ 07724

EXAMINER

REKSTAD, ERICK J

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/804,212

Applicant(s)

NAKAMURA ET AL.

Examiner

Erick Rekstad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) 4 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a first action for application no. 09/804,212 filed on March 12, 2001 in which claims 1-12 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,860,912 to Chiba in view of US Patent 6,310,650 to Johnson et al.

[claim 1]

As shown in Figures 7 and 8, Chiba teaches a stereoscopic image display device. The device comprises a display (monitor 5) used for projecting the image signals for the one eye and the other eye which have parallax (Abstract, Col 2 Lines 42-45, Col 5 Lines 3-21). Chiba further teaches the viewing of the stereoscopic images using glasses (spectacles 6, Fig. 7) in order to view only the image for one eye and only for the other eye (Col 7 Lines 13-17, Col 13 Lines 14-30, Figs. 12A-12D). Chiba teaches the correction processing means (keyboard 7, image correction 25R and 25L, Fig. 8) for carrying out correction processing on at least one of image signals for the one eye and the other eye, on the basis of an amount of correction of image distortion determined on the basis of the image displayed on the image display means (Col 5

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Lines 22-36, Col 7 Lines 17-18, Col 10 Lines 21-55, Fig. 9). Chiba does not specifically teach the use of a plurality of image projection means.

As shown in Figure 3, Johnson teaches the use of a plurality of CRT based image projecting means (projectors 54 and 56) (Col 2 Lines 55-56, Col 6 Lines 7-18). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the monitor of Chiba with the projectors of Johnson as both are CRT based and projectors are an inexpensive alternative for large displays.

[claims 2 and 9]

Chiba teaches the use of a keyboard for the input of the required image correction (Col 10 Lines 21-55). Chiba teaches the use of the input for the keyboard by correction processing means (25R and 25L, Fig 8) for each image signal (Col 10 Lines 21-55, Fig. 9). Chiba does not teach the use of a pick-up means for correction for picking-up an image projected on the image display means, for correction and the correction computing means using the pick-up image data to correct the image signals.

As shown in Figure 3, Johnson teaches the use of a pick-up means (camera 62) for picking up an image projected on the image display (58). The pick-up image is used by the correction computing means (52) to correct the image signal (66) (Col 6 Lines 18-26, Col 6 Line 40-Col 7 Line 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the correction method of Chiba with the correction method of Johnson in order to provide a display that can be calibrated and re-calibrated with little or no manual intervention (Col 2 Lines 38-41).

[claims 3, 5, 10 and 11]

Chiba specifically teaches the use of liquid crystal shutter spectacles in the stereoscopic image device as required by claims 5 and 11 (Col 13 Lines 14-30, Figs. 12A-12D). Chiba further teaches the prior art of using polarizing means (Col 2 Lines 1-54, Figs. 2-4). Chiba further teaches the utilization of polarization in place of the liquid crystal shutters (Col 2 Lines 52-54). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the polarizing means of Chiba instead of the liquid crystal shutter means of Chiba as it is well known in the art to use either polarizing or shutters for stereoscopic imaging as taught by Chiba (Col 2 Lines 1-54, Figs 2-4) and polarizing is an inexpensive alternative to shutters.

Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba and Johnson as applied to claim 5 above, and further in view of US Patent 5,879,065 to Shirochi et al.

[claim 6]

Chiba specifically teaches the use of liquid crystal shutter spectacles in the stereoscopic image device as required by claim 5 (Col 13 Lines 14-30, Figs. 12A-12D). Chiba further teaches the prior art of using polarizing means (Col 2 Lines 1-54, Figs. 2-4). Chiba further teaches the utilization of polarization in place of the liquid crystal shutters (Col 2 Lines 52-54). Chiba does not teach the use of a second shutter means wherein the projectors and the spectacles have shutters.

As shown in Figure 12, Shirochi teaches the prior art in which the projectors and the spectacles are polarized (Col 1 Lines 10-20). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the projector and spectacle

polarizers with shutters as the techniques are interchangeable as taught by Chiba (Col 2 Lines 52-54).

Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba and Johnson as applied to claims 1 and 9 above, and further in view of WO 94/22050 to Berglund.

Chiba and Johnson teach the devices of claims 1 and 9 as shown above. Johnson further teaches the use of multiple projectors to produce a single image as shown in Figure 3 (Col 2 Lines 55-56, Col 6 Lines 7-18). Chiba and Johnson do not teach the use of a multi-primary-color projector.

As shown in Figure 37, Berglund teaches the use of a six primary color projector for use with a PD-LCD projection system (Page 7 Lines 11-25, Page 26 Lines 19-37). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the projectors of Johnson with the projectors of Berglund in order to use a PD-LCD system for the sharpest and clearest 3D picture.

Allowable Subject Matter

Claims 4 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In regards to claims 4 and 7, Chiba and Johnson teach the system of claim 3 as shown above. As shown in Figure 3, Johnson teaches the use of a pick-up means

(camera 62) for picking up an image projected on the image display (58). The pick-up image is used by the correction computing means (52) to correct the image signal (66) (Col 6 Lines 18-26, Col 6 Line 40-Col 7 Line 8). Chiba and Johnson do not teach the pick-up means containing a rotation control means and a pick-up time counting means. These features taken with the others in the claims define over the prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,538,742 to Ohsawa.

US Patent 6,456,339 to Surati et al.

US Patent 6,219,011 to Aloni et al.

US Patent 6,538,705 to Higurashi et al.

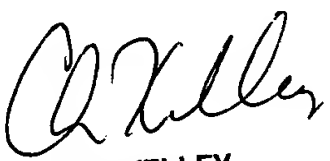
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 571-272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erick Rekstad
Examiner
AU 2613
(571) 272-7338
erick.rekstad@uspto.gov


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
EBC/ELC/EC/2000